

ABSTRACT

An inventive inverter has a semiconductor switch circuit connected to the primary winding of a transformer. The semiconductor switch circuit is respectively controlled by PWM to supply a constant current to the load connected to a secondary winding of the transformer. The inverter is capable of deliberately regulating its ac power output to the load and lowering the lower limit of the output power through control of the intermittent operation, in which an error signal for carrying out the PWM control is reduced to zero during each off-duty period. In addition, the error signal for the PWM control is slowly decreased or increased in each shift from an off-duty period to on-duty period, and vice versa, by charging or discharging the capacitor in a feedback circuit, thereby allowing slow start or slow end of the respective on-off operations for the constant current control through the PWM.